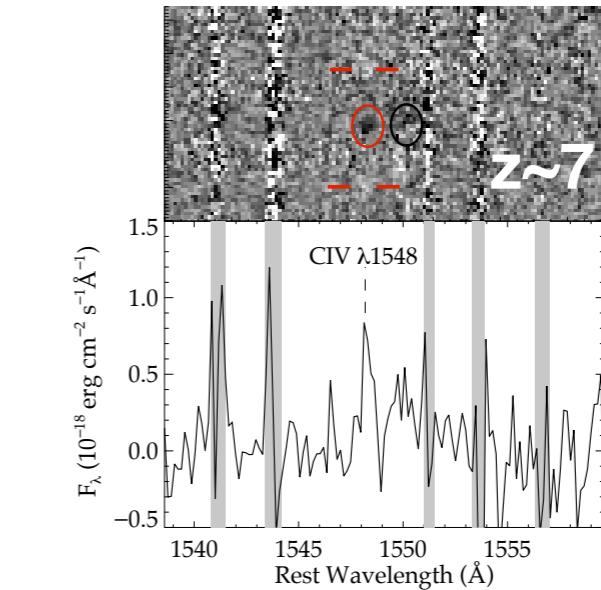


Discussion on Reionization & ionization tracers

Topics for this discussion:

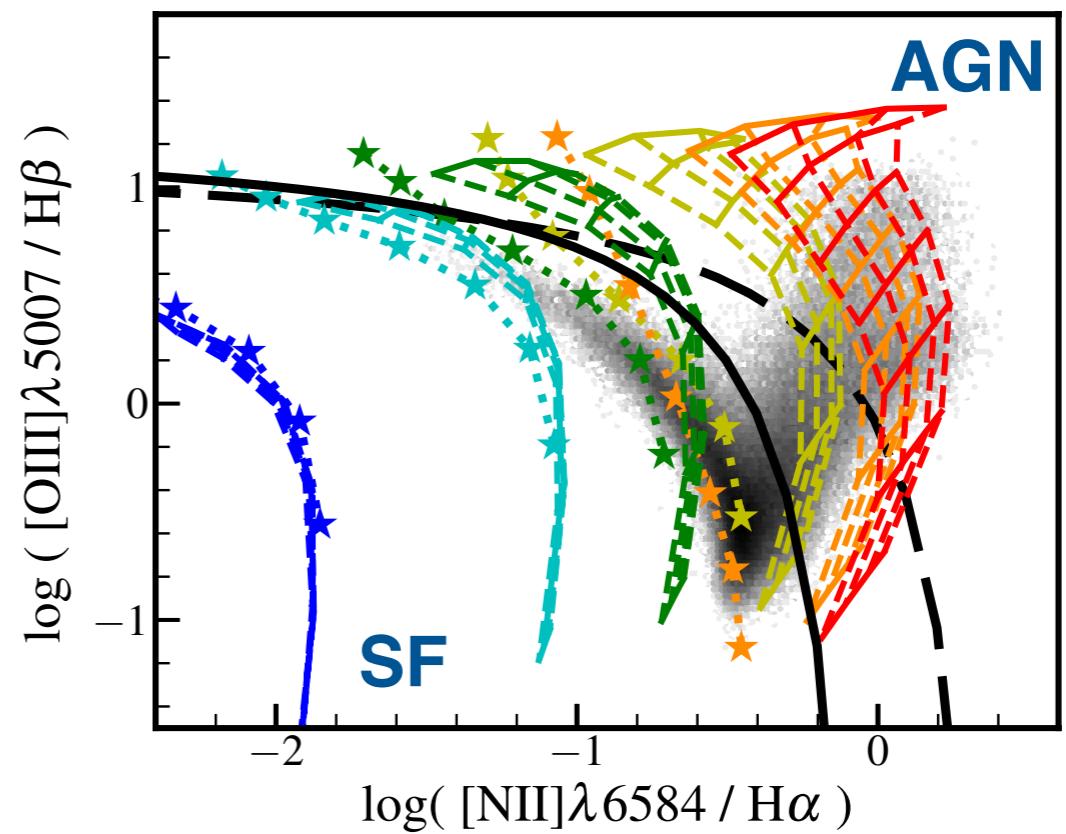
- What are the contributions to cosmic reionization of AGN/SF?
- How do we discriminate between IMF/binaries/rotation/AGN/popIII ?
- what is ξ_{ion} ?
- How do we spectroscopically confirm the most distant galaxies with JWST?

Discussion on Reionization & ionization tracers



Stark+2015

Baldwin, Phillips & Terlevich 81 BPT diagram

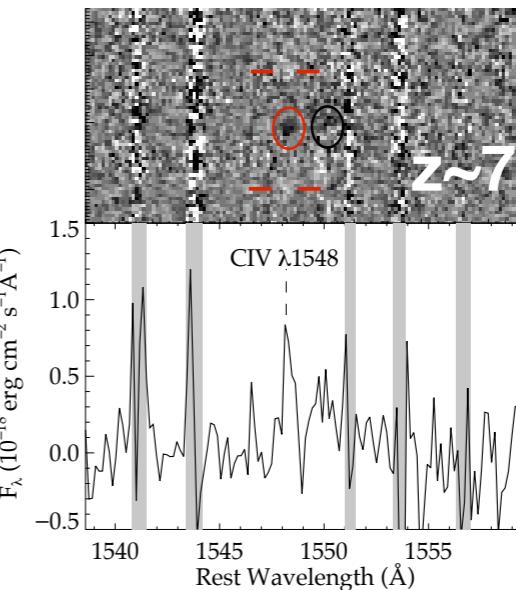


Anna Feltre's talk

Discussion on Reionization & ionization tracers

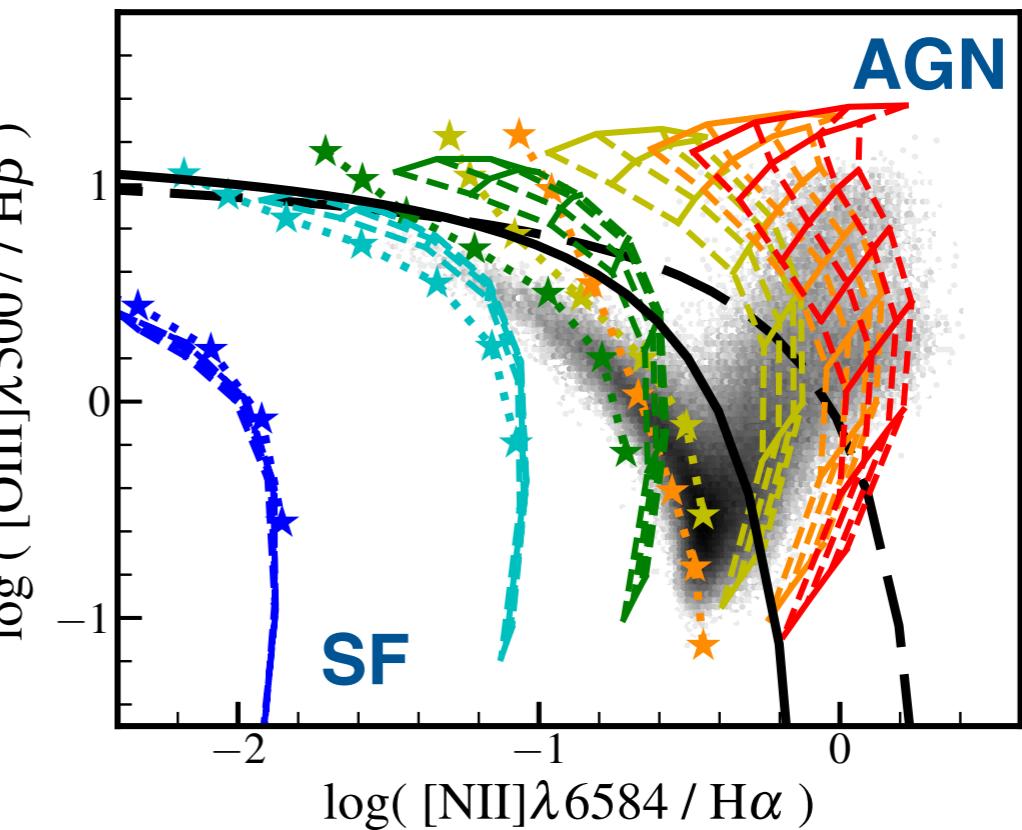
Vote: How many of the LyC photons in the EoR are produced by AGN?

- 1) <10%
- 2) ~20%
- 3) ~50%
- 4) >80%



Stark+2015

Baldwin, Phillips & Terlevich 81 BPT diagram

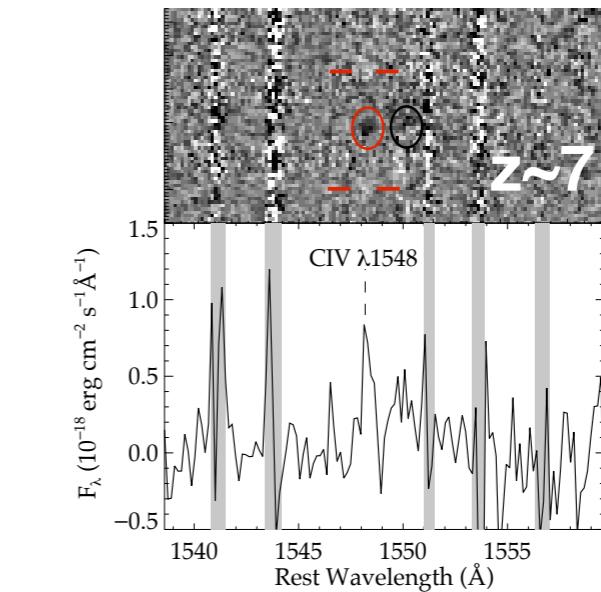


Anna Feltre's talk

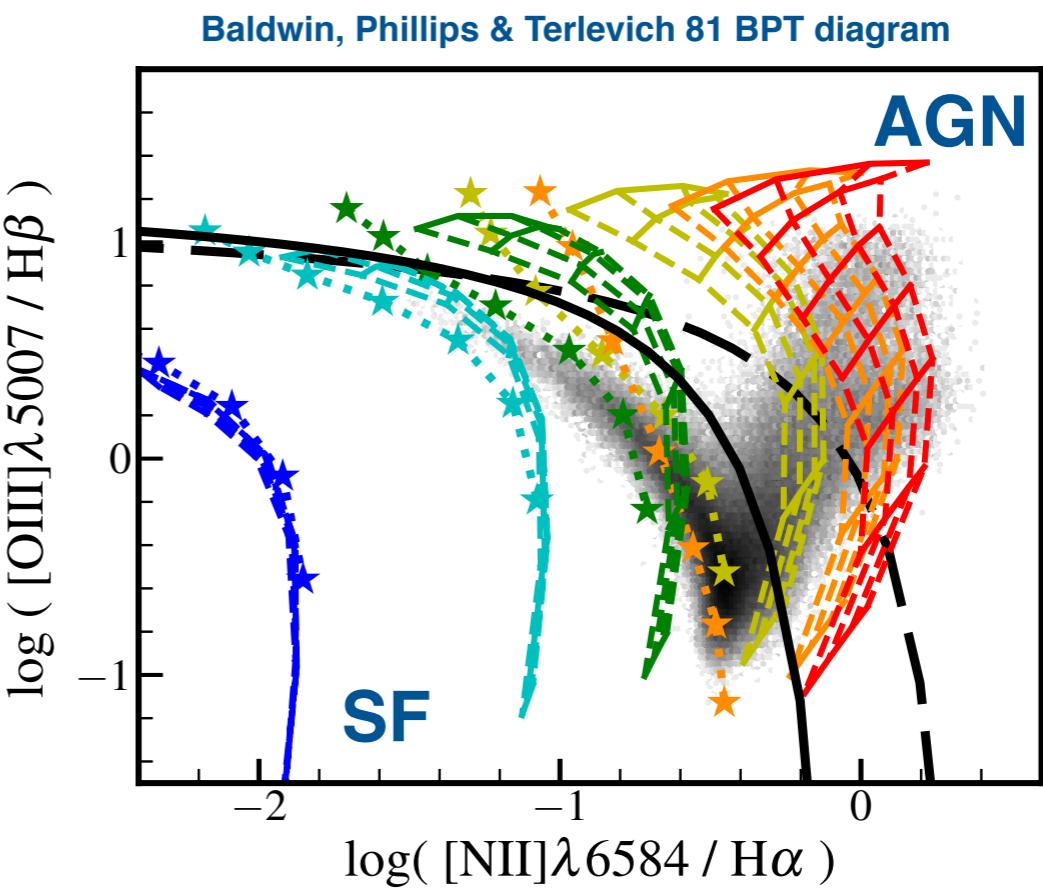
Discussion on Reionization & ionization tracers

What do we need from e.g.
JWST spectroscopy to identify
contributions of AGN, IMF or
binaries?

- High ion. line ratios (e.g. CIV/CIII])
- Line widths
- good statistics of CIII] EW
- good statistics of BPT measurements
- Stellar absorption features
- Wolf-Rayet HeII features
- E-ELT/TMT spatial resolution
- ...



Stark+2015



Anna Feltre's talk

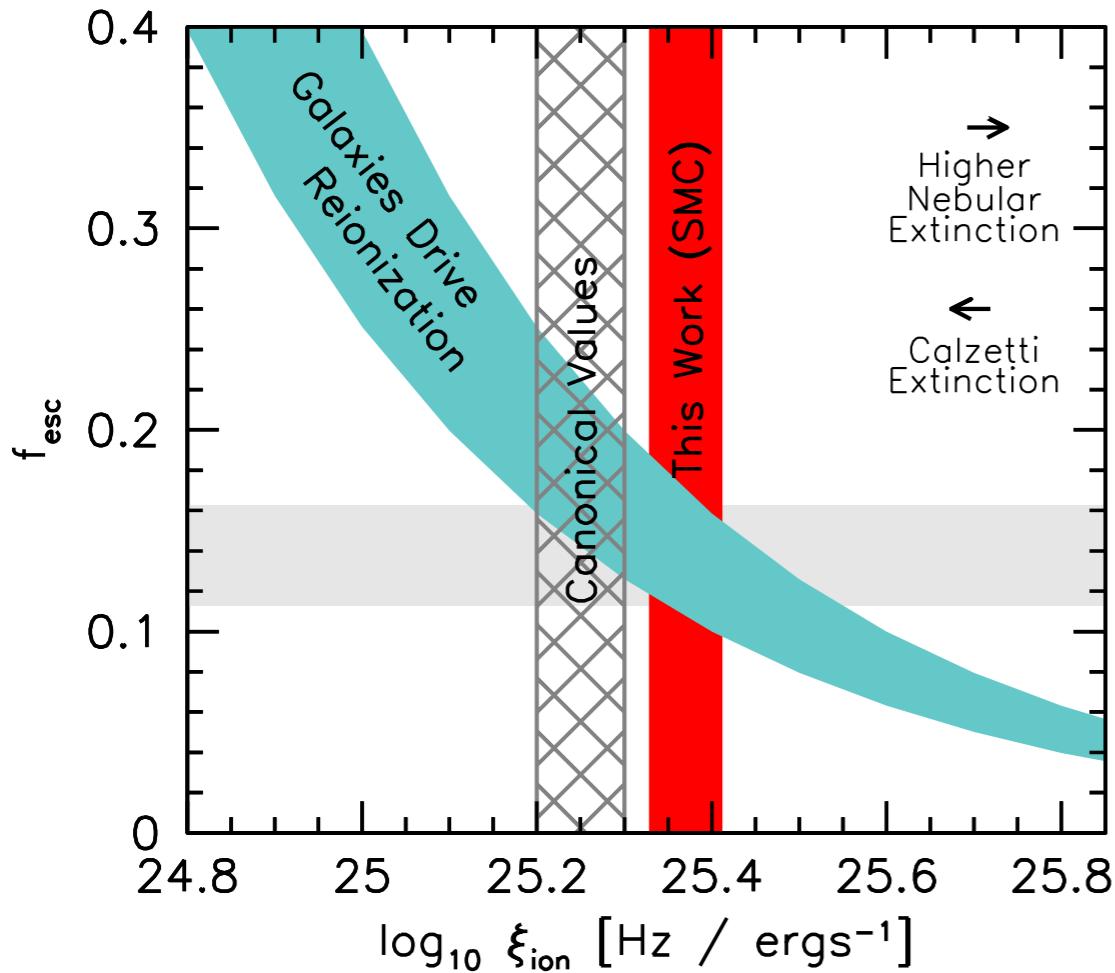
Discussion on Reionization & ionization tracers

How do we identify PopIII stars / DCBH?

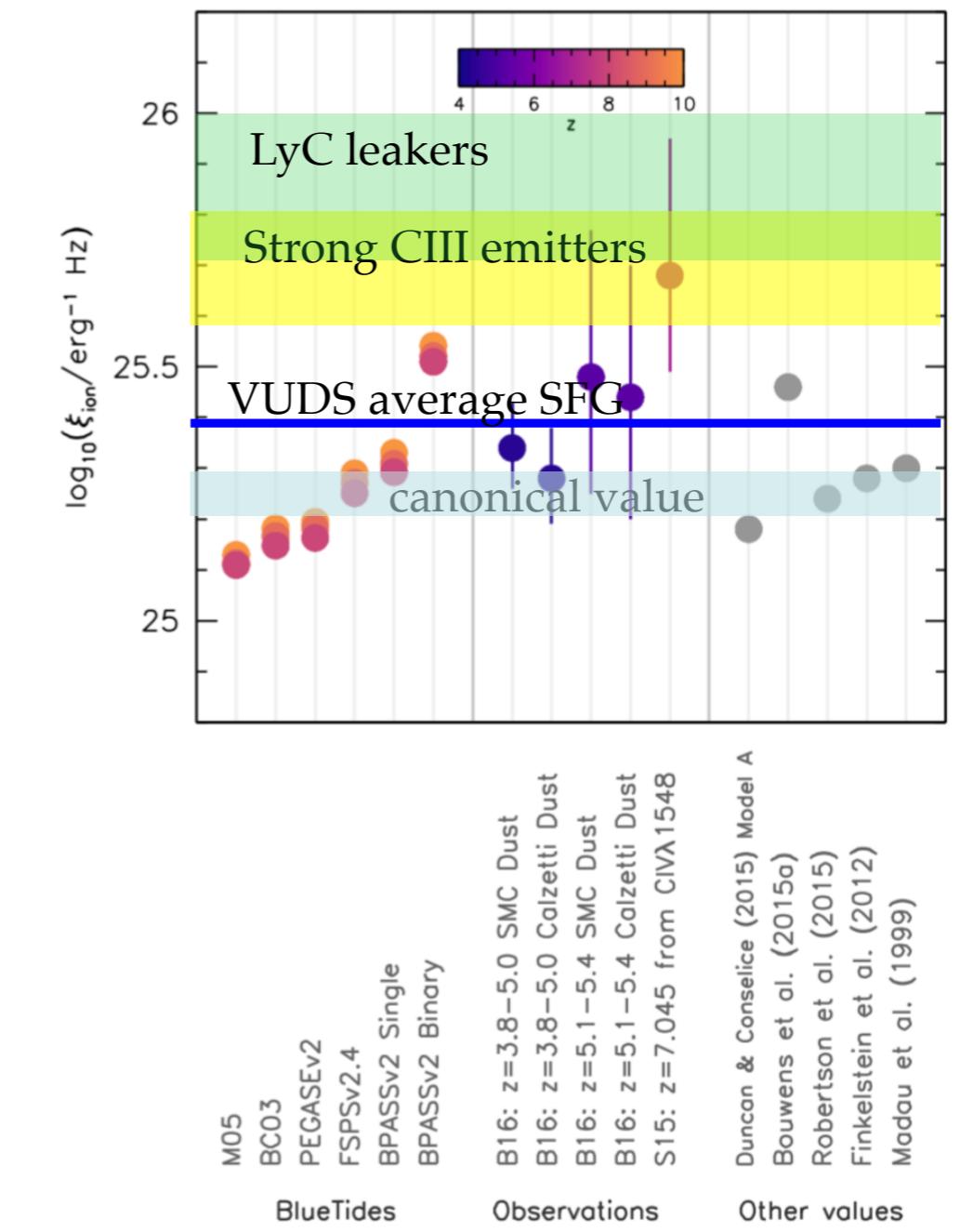
- Finding HeII is not a guarantee for PopIII (talk Sobral/ Matthee)
- What are better diagnostics / at what CIII]/HeII ratio is a galaxy ‘metal-free’?

Discussion on Reionization & ionization tracers

High ξ_{ion} : at what point do we reionize the Universe too early?



Bouwens,Smit+2016



Wilkins+2016
Daniel Schaerer's talk

Discussion on Reionization & ionization tracers

Will CIII] be enough to identify $z>9-12$ sources with JWST?

- Olivier Le Fevre: “only 1/4 of VUDS sources has CIII] EW high enough to provide a spec-z”
- Do we need Lyman continuum break / absorption line spec-z’s?
- Galaxies evolve from $z\sim 3$ to $z\sim 12$: does the fraction of high-EW CIII] sources increase?
- Can we find truly representative populations at $z\sim 2-3$ to test this?